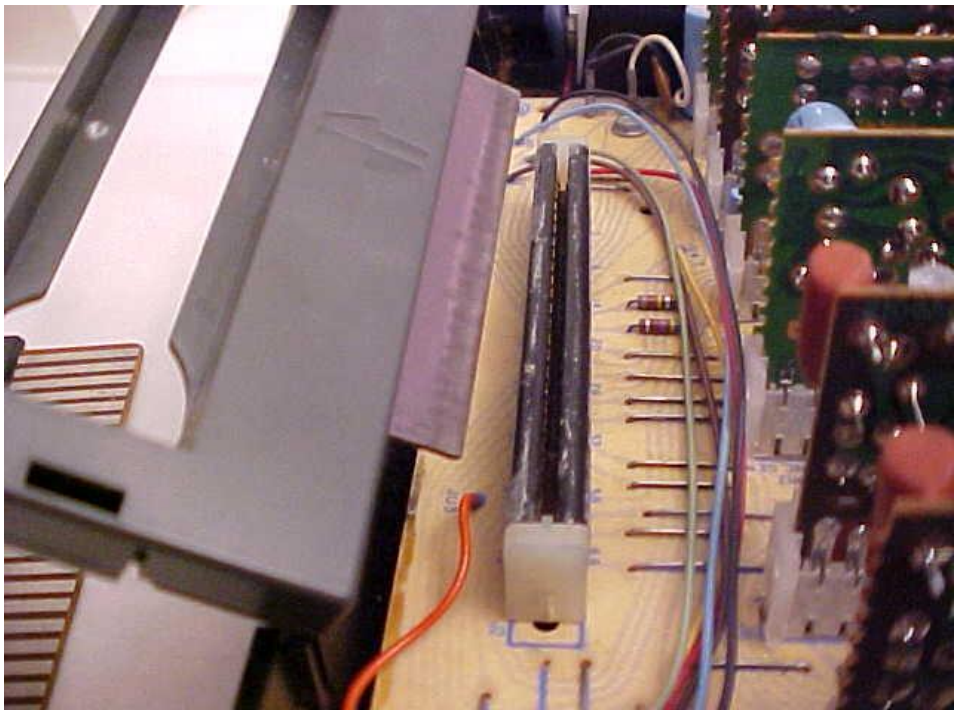
SETTING UP MAGNAVOX ODYSSEY SYSTEMS 1972-1975 AND FIXING JITTER IN HAND CONTROLS UPDATED 2016

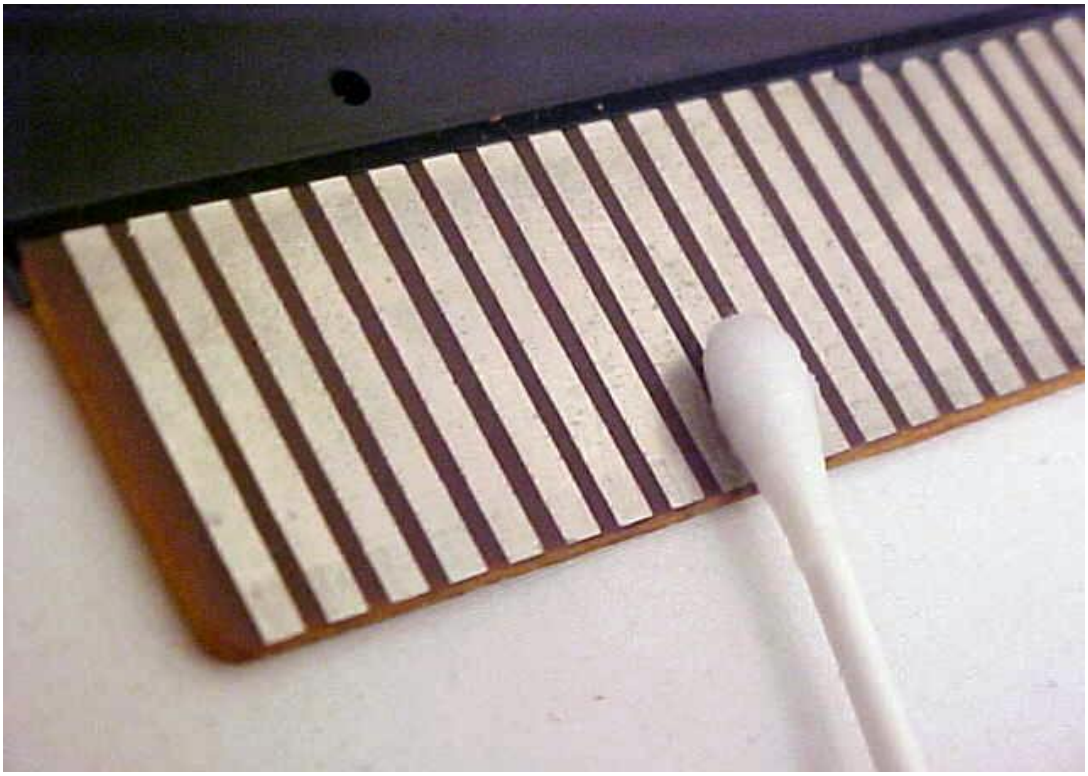
BY RICHARD SANFORD

IF YOU HAVE AN ORIGINAL MAGNAVOX ODYSSEY SYSTEM THAT IS NOT WORKING CORRECTLY THIS INFORMATION SHOULD HELP

I HAVE BOUGHT AND SOLD OVER 100 SYSTEMS AND HAVE LEARNED HOW TO SET THEM UP . IF YOU CAN NOT SEE ANY THING BUT A BLACK SCREEN WHEN YOU HAVE EVERYTHING TURNED ON CORRECTLY, TRY CLEANING THE CONTACTS BY REMOVING 4 SCREWS FROM CORNERS REMOVE 2 BLACK KNOBS FROM BACK USE SOME KIND OF CONTACT CLEANING SYSTEM

THIS ONE IS FROM AN NINTINDO N64 SYSTEM
2
WET THE PAD WITH ALCOHOL/WATER MIXED 1 TO 1
ON A SWAB
AND RUB IT SEVERAL TIMES
THEN PUT IT IN AGAIN UNTIL CLEAN



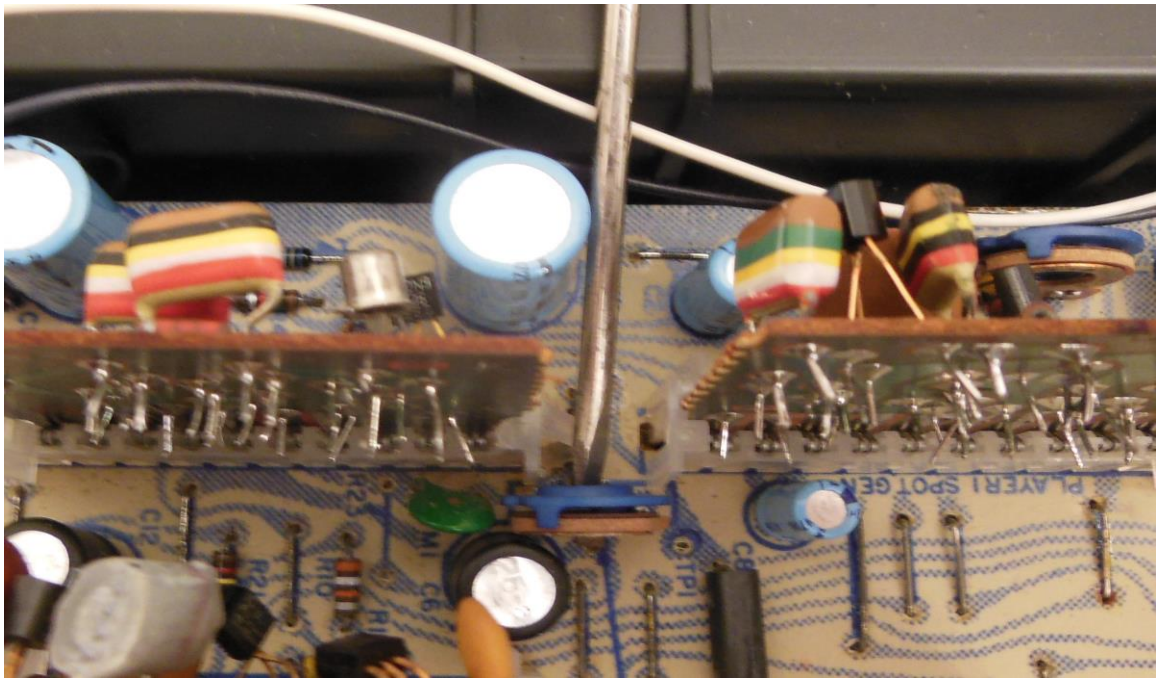


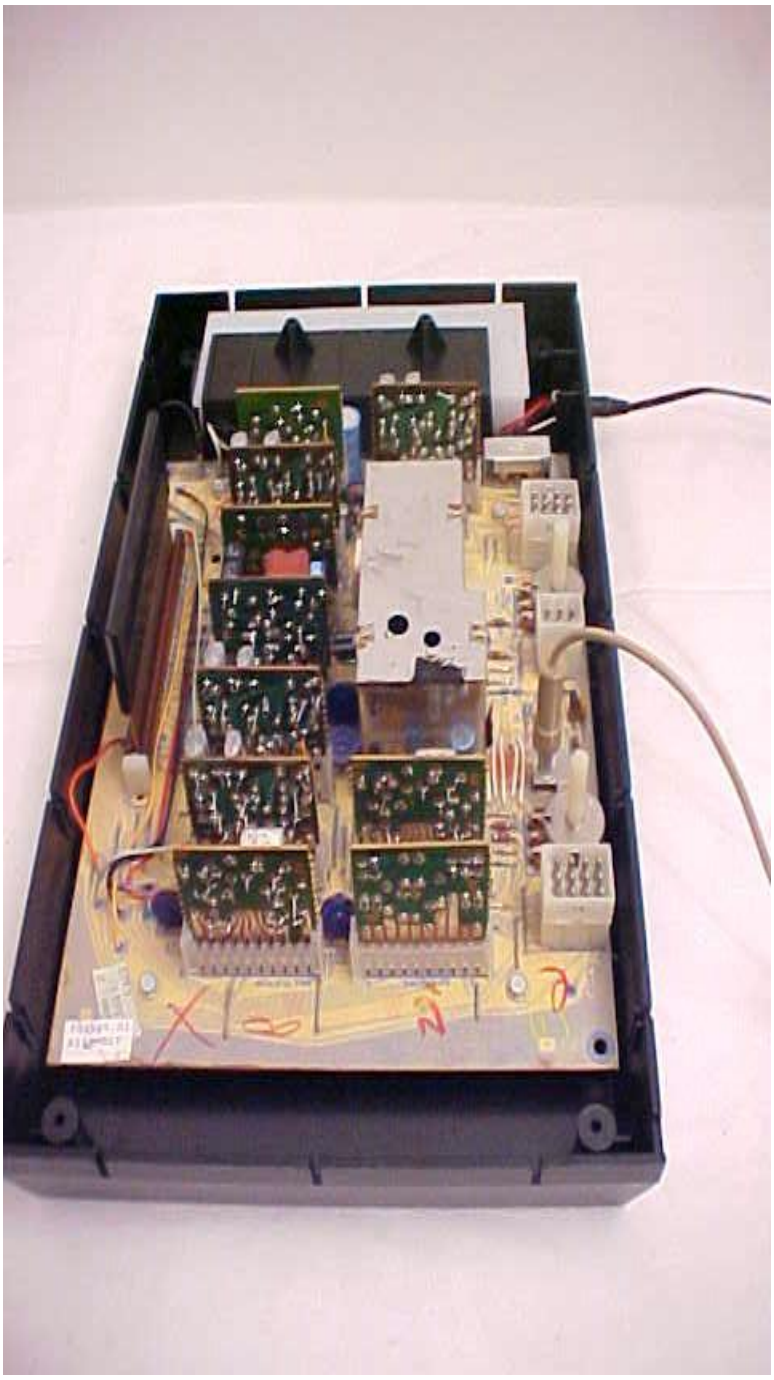
NEXT CLEAN GAMES BEFORE INSERTING

YOU WILL NEED GAME DISK ONE AND A TEST CORD
MAKE SURE YOU ARE USING CH 3 OR 4
THERE IS A SWITCH INSIDE CONSOLE
IF BATTERY COMPARTMENT IS GOOD, USE IT
OR AN A/C ADAPTER 9 VOLT AND 100 M/A
IF YOU DO NOT HAVE AN ORIGINAL ODYSSEY
A/C ADAPTER, YOU CAN BUY A UNIVERSAL
ADAPTER ON LINE. JUST MAKE SURE IT HAS
A MINI PIN LIKE THIS
YOU CAN CHANGE THE VOLTAGE
SO THIS ONE ITEM WILL WORK
ON ODYSSEY,ATARI 2600,NINTENDO
AND TONS MORE
ONE WILL COST ABOUT 15 SHIPPED

NOW TRY ADJUSTING THE CONTROL KNOBS ON EACH SIDE OF THE CONTROLLERS
YOU SHOULD SEE WHITE SQUARES APPEAR
THERE IS ALSO AN ADJUSTMENT FOR THE CENTER LINE TO MOVE IT TO THE MIDDLE OF THE SCREEN
IT IS ON THE BACK OF DECK
THE OTHER KNOB IS TO CONTROL BALL SPEED
SOMETIMES THE DISK MAY NOT BE SEATED PROPERLY AND THE LINE WILL NOT APPEAR
TRY AGAIN
4
IF YOU GET A ROLLING SCREEN

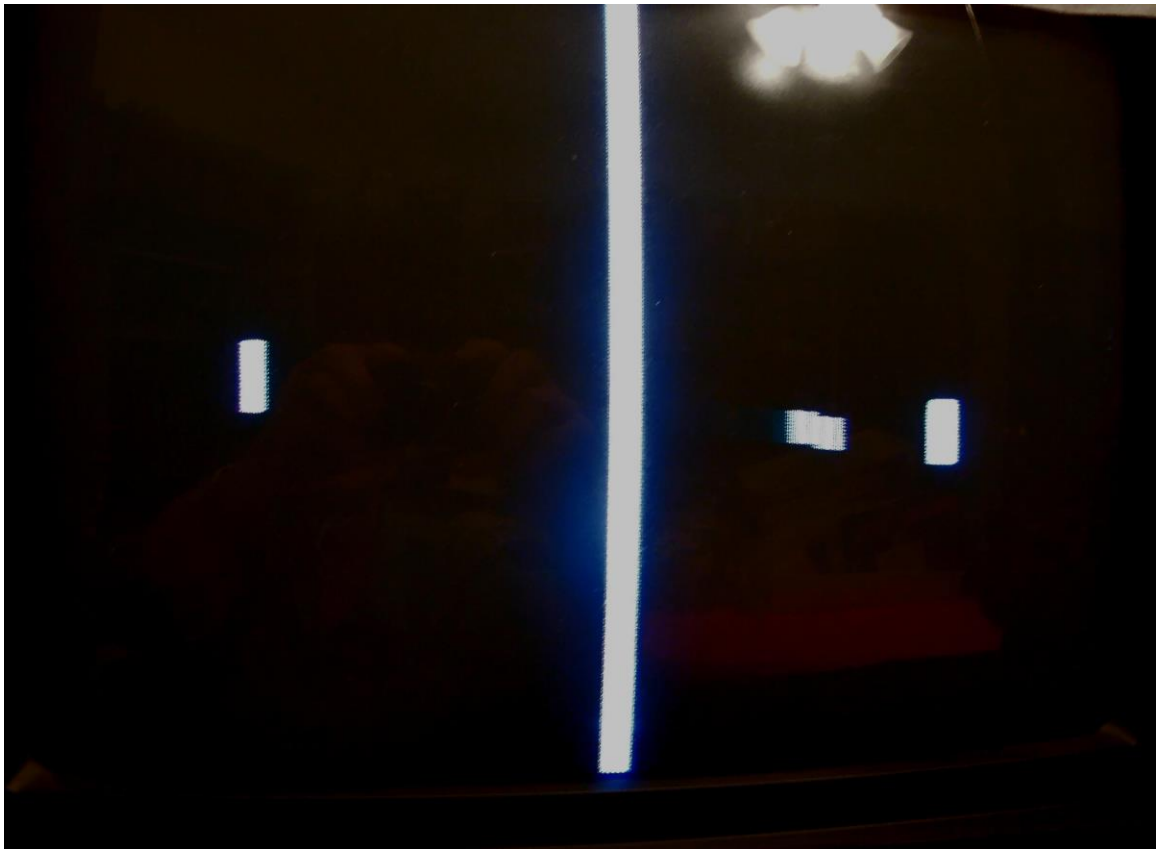
NOTICE THE LINES IN THE MIDDLE
TO STOP THE ROLL FIND THE HORIZONTAL ADJUSTMENT KNOB AND TURN SLOWLY UNTIL PICTURE STOPS ROLLING





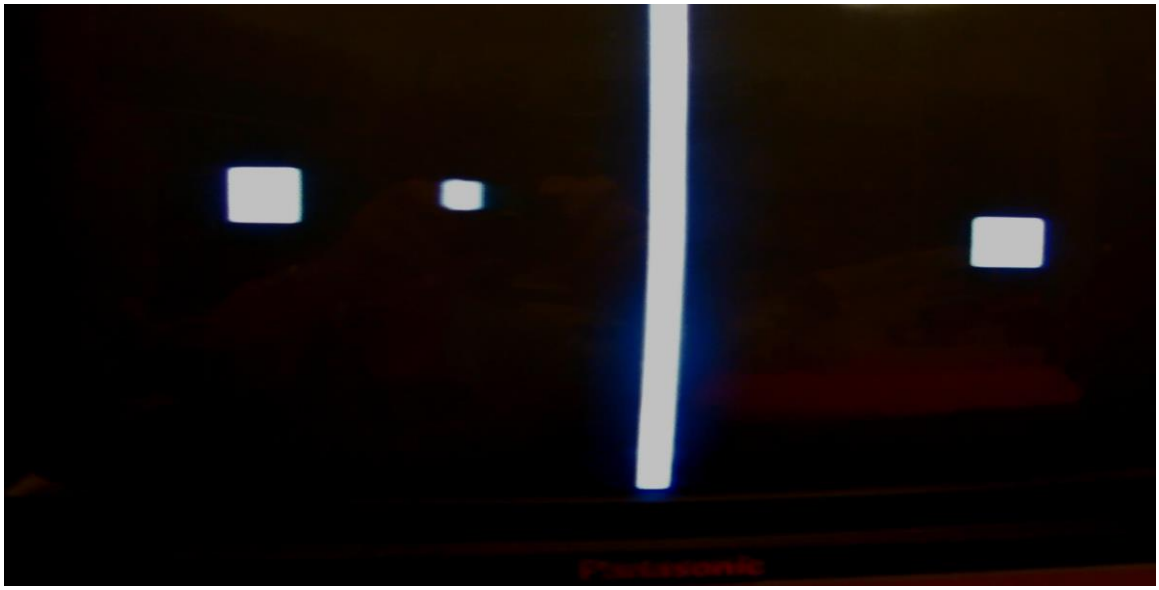
STUDY THE INSIDES
THERE ARE SEVERAL BLUE ADJUSTMENT WHEELS
THEY ARE ALL MARKED LIKE PLAYER 1 OR 2
CENTER LINE THICKNESS
BALL WIDTH AND HORIZONTAL ADJUST
6

THIS WAS THE 1ST IMAGE I GOT

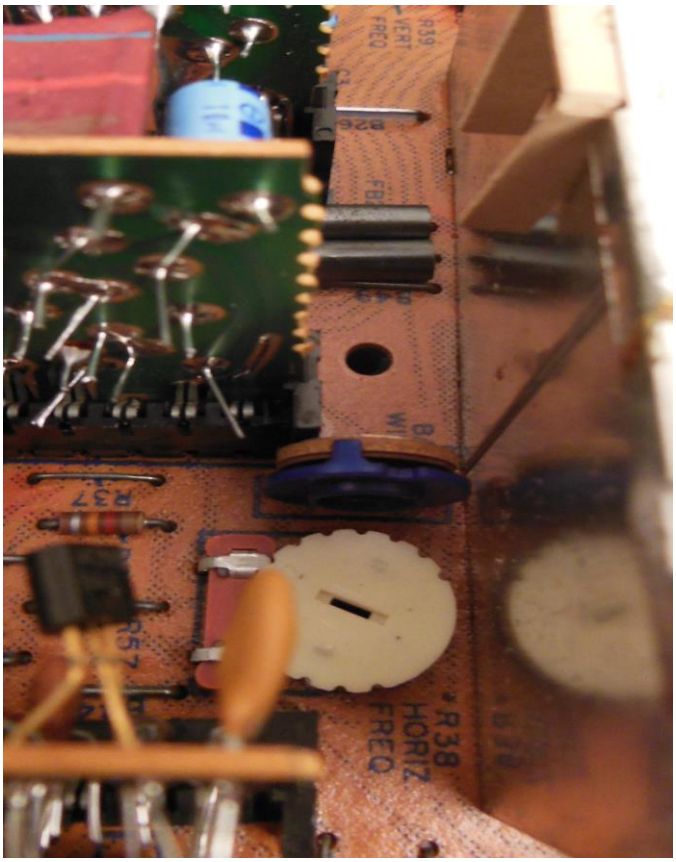


SO I ADJUSTED THE WALL WIDER

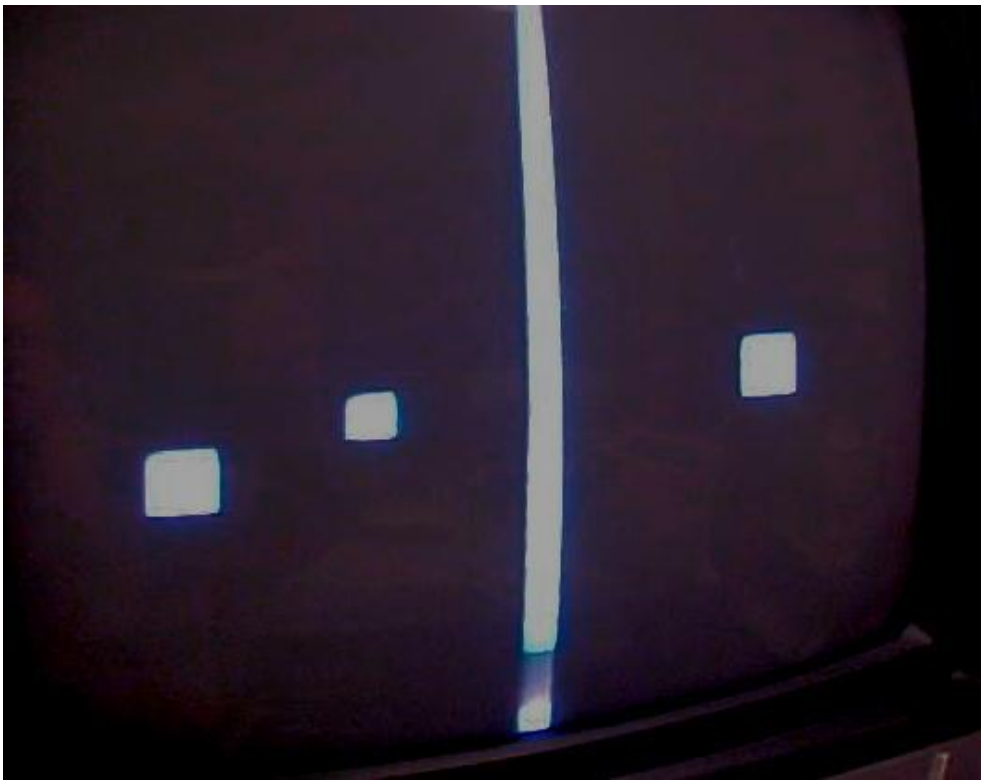
THEN I ADJUSTED EACH PLAYER WIDTH



THEN I ADJUSTED BALL



THIS BLUE DIAL WIDENS THE BALL

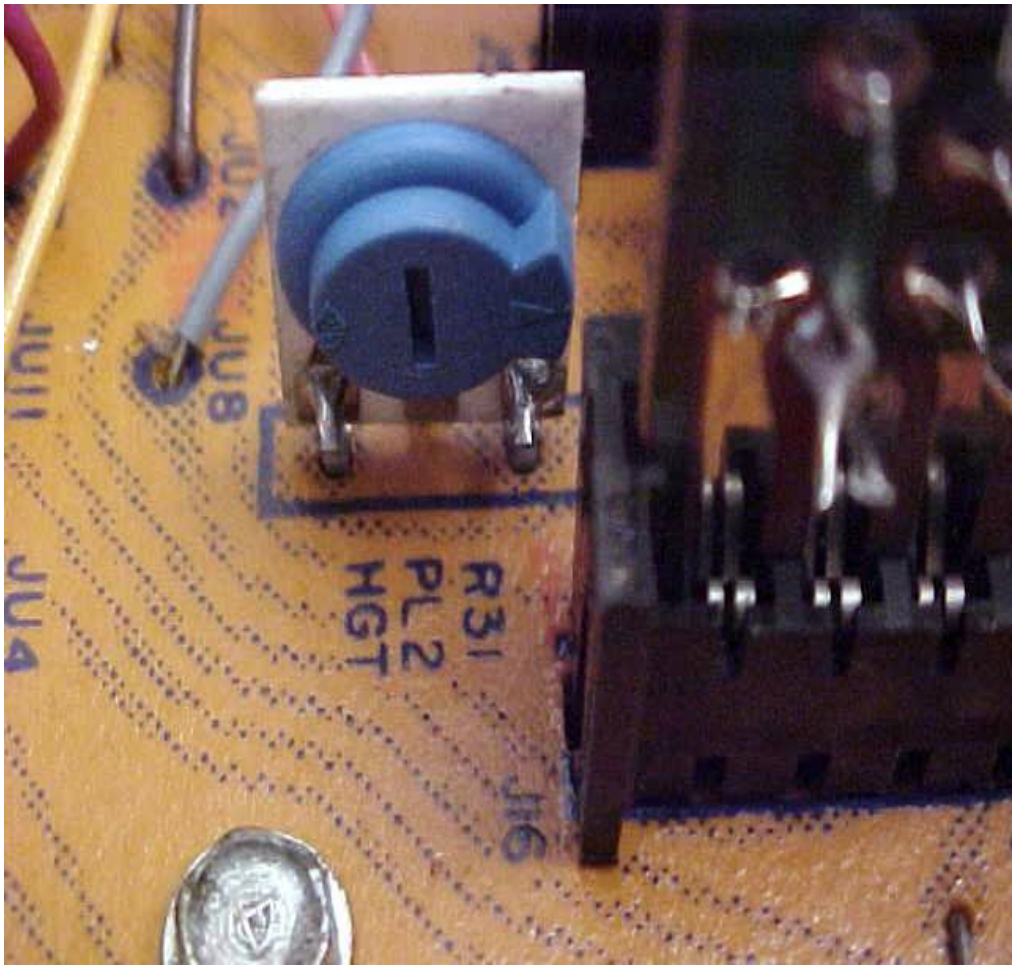


THIS IS WHAT IT SHOULD LOOK LIKE

2 PADDLES, CENTER LINE, AND BALL

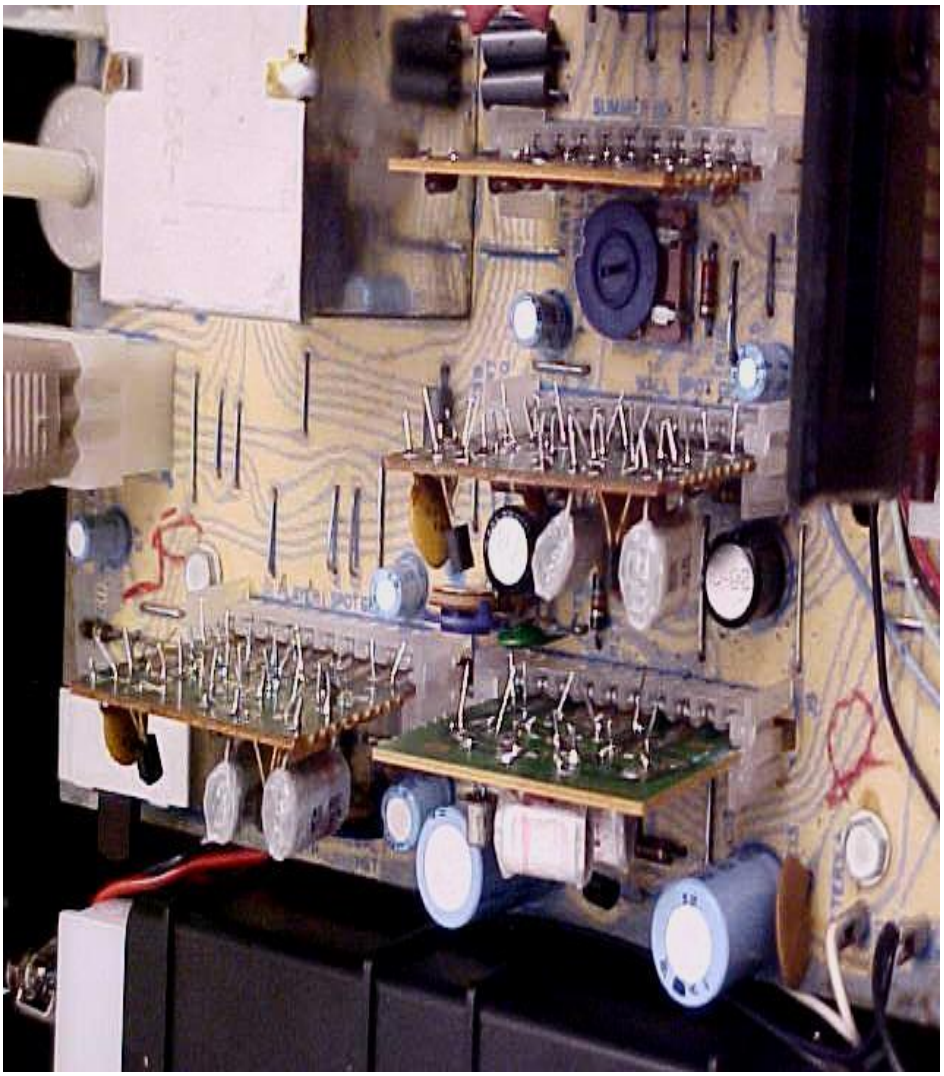
SIZE
ON 25 INCH TV, PLAYERS ARE

1 ¼ 1NCH, WALL IS ¾ IN
BALL IS 1 INCH
19 INCH TV PLAYERS ARE 15/16TH IN
BALL ¾ IN
WALL 9/16
12 INCH TV PLAYERS =5/8THS
BALL =½ IN WALL= 3/8 IN
10

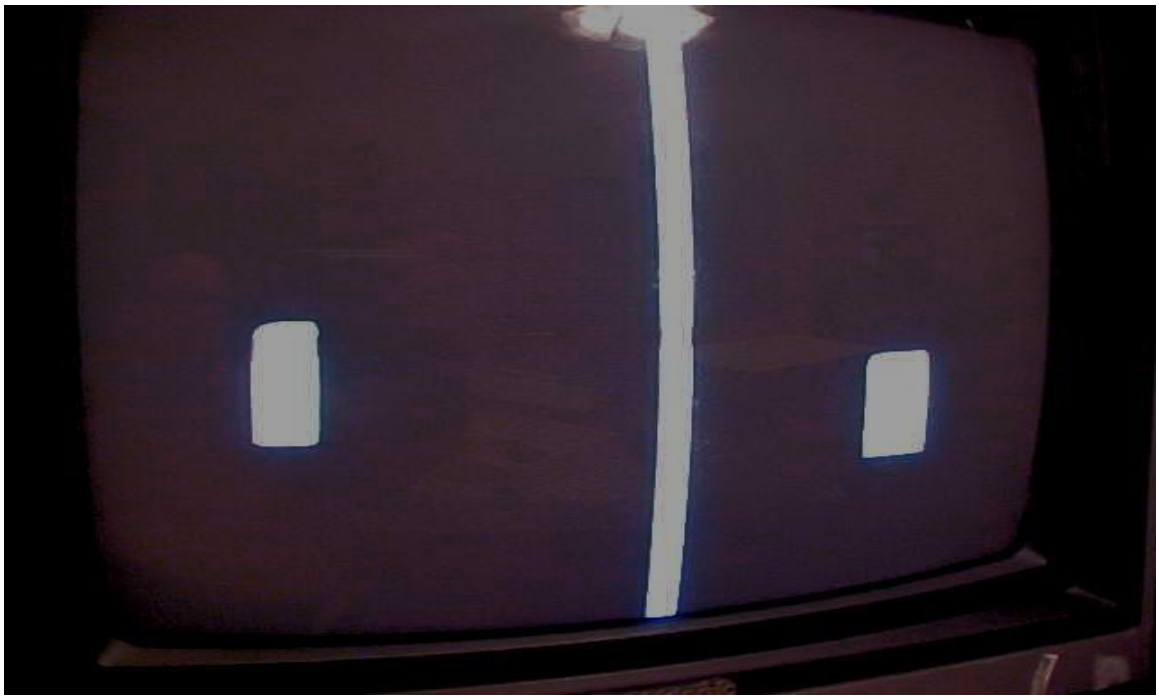


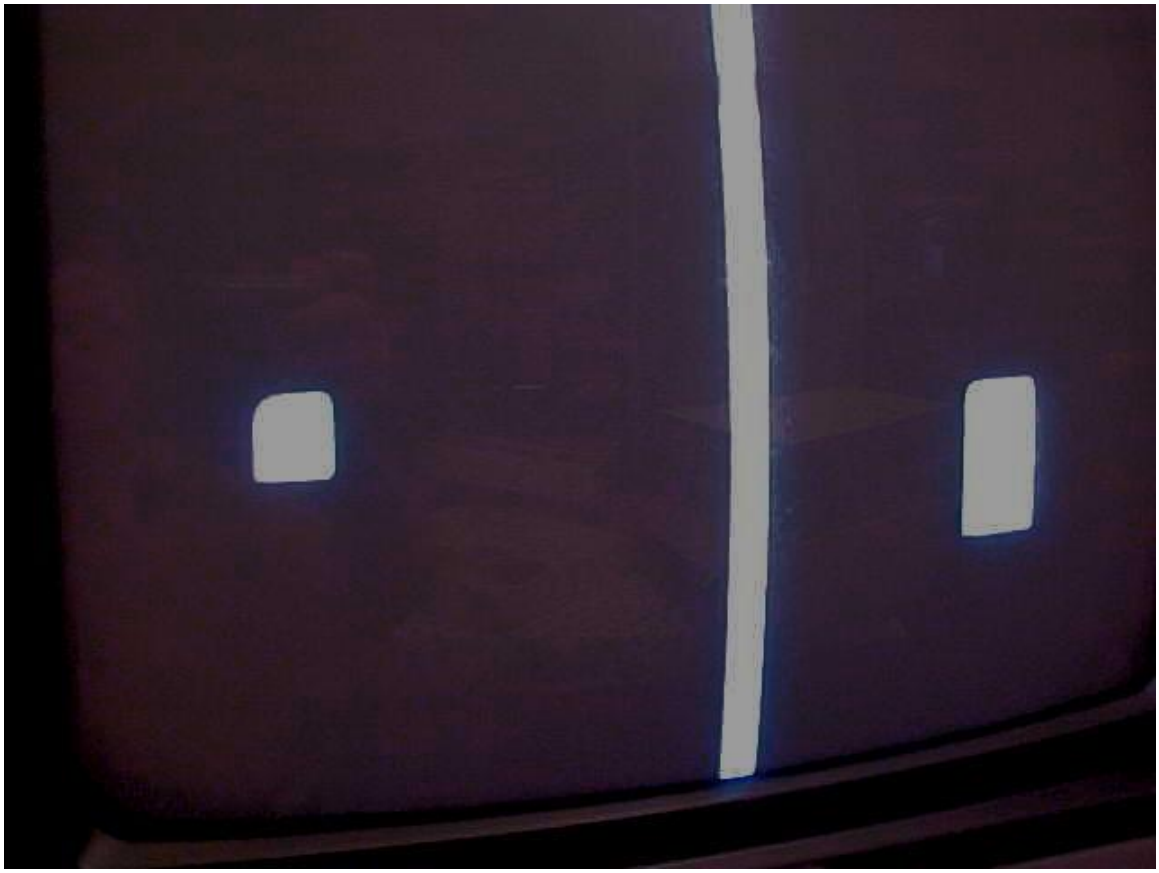
PLAYER 2 HEIGHT FOR EXAMPLE

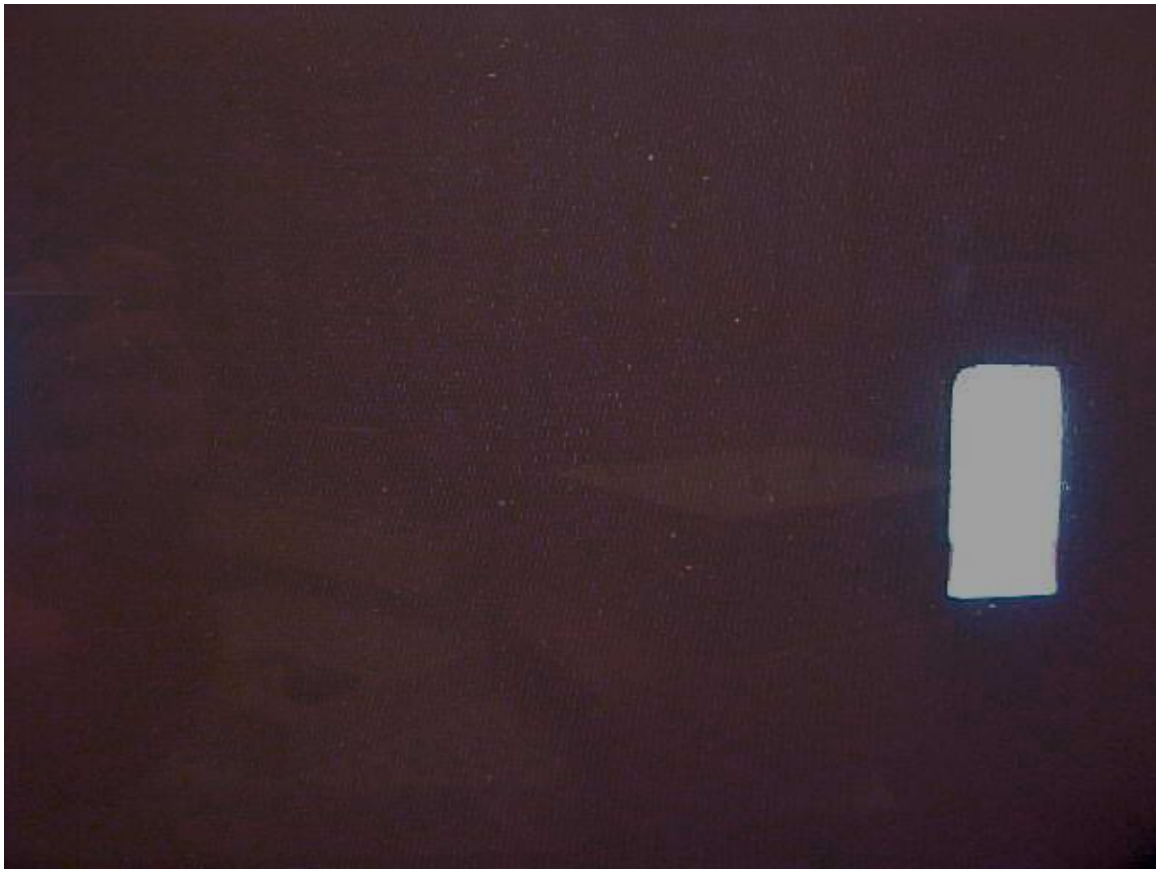
ONCE EVERY THING IS SET UP
HIT THE RESET BUTTON TO RELEASE THE BALL
IF IT DOES NOT BOUNCE FROM PADDLE TO PADDLE
TRY USING KNOBS ON CONTROLS TO
CHANGE SIDES OF PLAYERS
IT SHOULD NOT JUST PASS THROUGH PADDLES
11



THESE ARE ADJUSTMENTS FOR PLAYER 1
NEXT TO BATTERY COMPARTMENT
THESE BOARDS ALL PULL OUT VERY HARD
BUT I HAVE NOT NEEDED TO CLEAN THEIR CONTACTS
I HAVE A REPAIR SPECIALIST WHO HAS WORKED ON SEVERAL OF MY DECKS WHEN THERE WAS AN ELECTRICAL ISSUE







THIS IS TO SHOW YOU HOW MUCH YOU CAN CHANGE SIZES BUT YOU SHOULD NOT MAKE LONG THEY SHOULD BE ABOUT 1 INCH SQUARE

NOW I WILL SHOW YOU WHAT THE INSIDES LOOK LIKE AND WHERE ALL THE ADJUSTMENT WHEELS ARE LOCATED

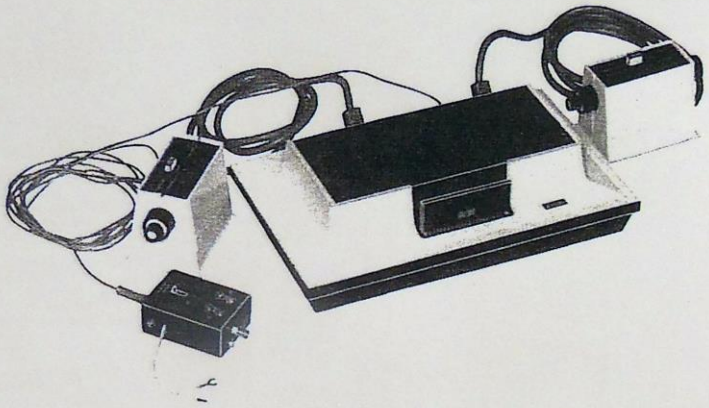
Magnavox SERVICE MANUAL

THE MAGNAVOX COMPANY · SERVICE DEPARTMENT
FORT WAYNE, INDIANA

Manual No. 6500

File: 1974 "D" Series (Volume 11)
Miscellaneous Section
Second Issue: May, 1975

1TL200 BLAK & BK12 ODYSSEY GAME SIMULATOR



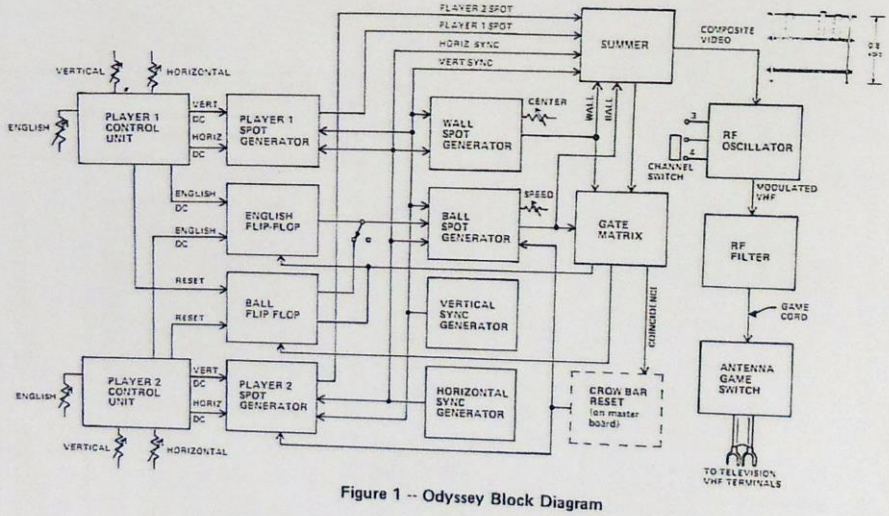


Figure 1 -- Odyssey Block Diagram

GENERAL DESCRIPTION

Odyssey is an electronic game simulator developed by Magnavox as a consumer leisure time product. The basic Odyssey set consists of a Master Control Unit, Game Cards, two Player Control Units, Antenna-Game Switch Box and the cables necessary to interconnect the electronics. Also included are game Overlays, Instruction Book, Poker Chips, etc., for playing the various games. Accessories such as the

The Master Control Unit consists of a master board and 12 solid-state plug-in modules. Figure 1 is the block diagram of the Odyssey system excluding the television set.

The Odyssey game is connected as shown in Figure 2. The Master Control Unit generates the video, sync and RF signals necessary to produce two Players, a Ball and a Wall

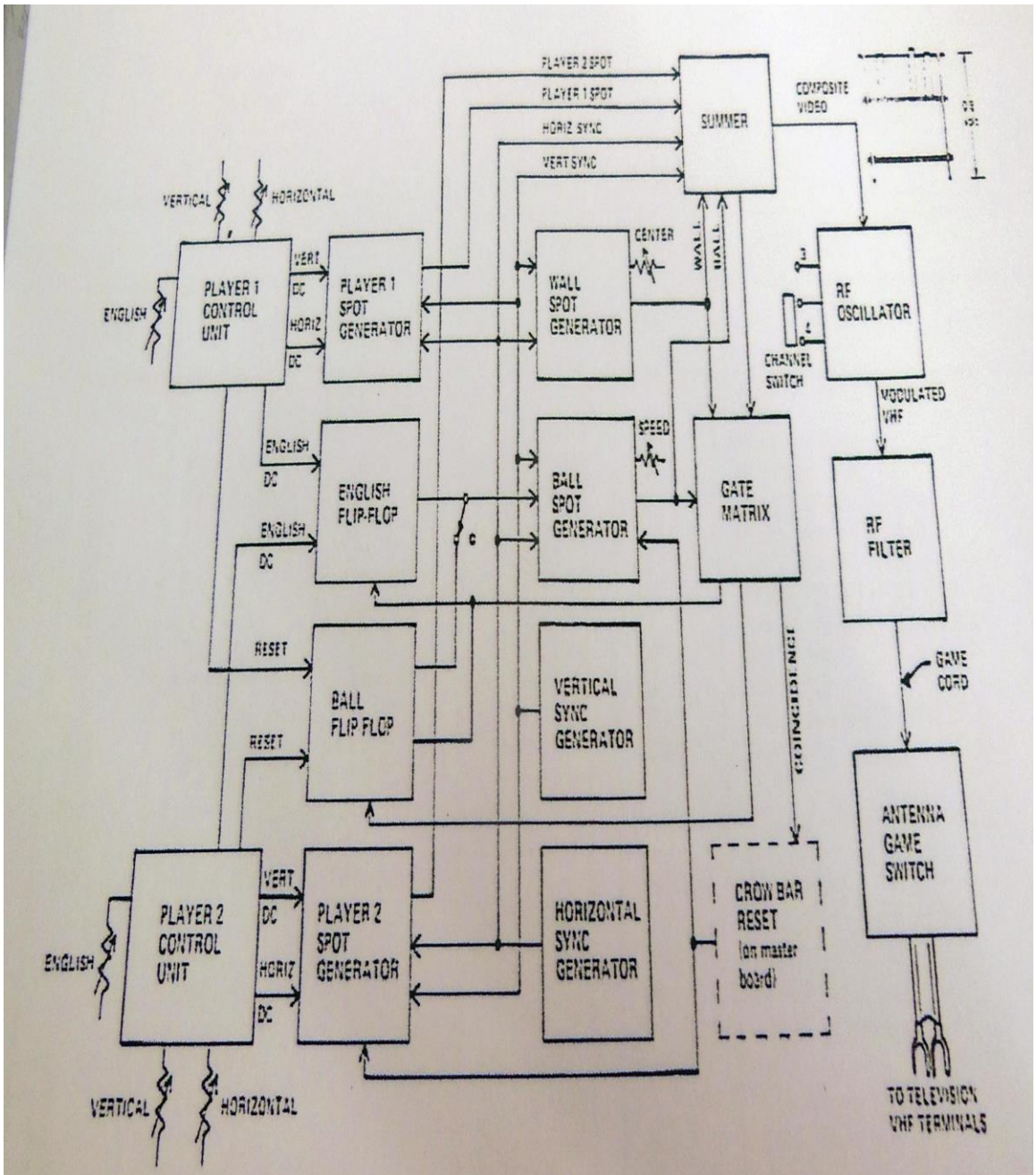


Figure 1 -- Odyssey Block Diagram

GENERAL DESCRIPTION

MASTER BOARD REFERENCE GUIDE
(TOP VIEW)

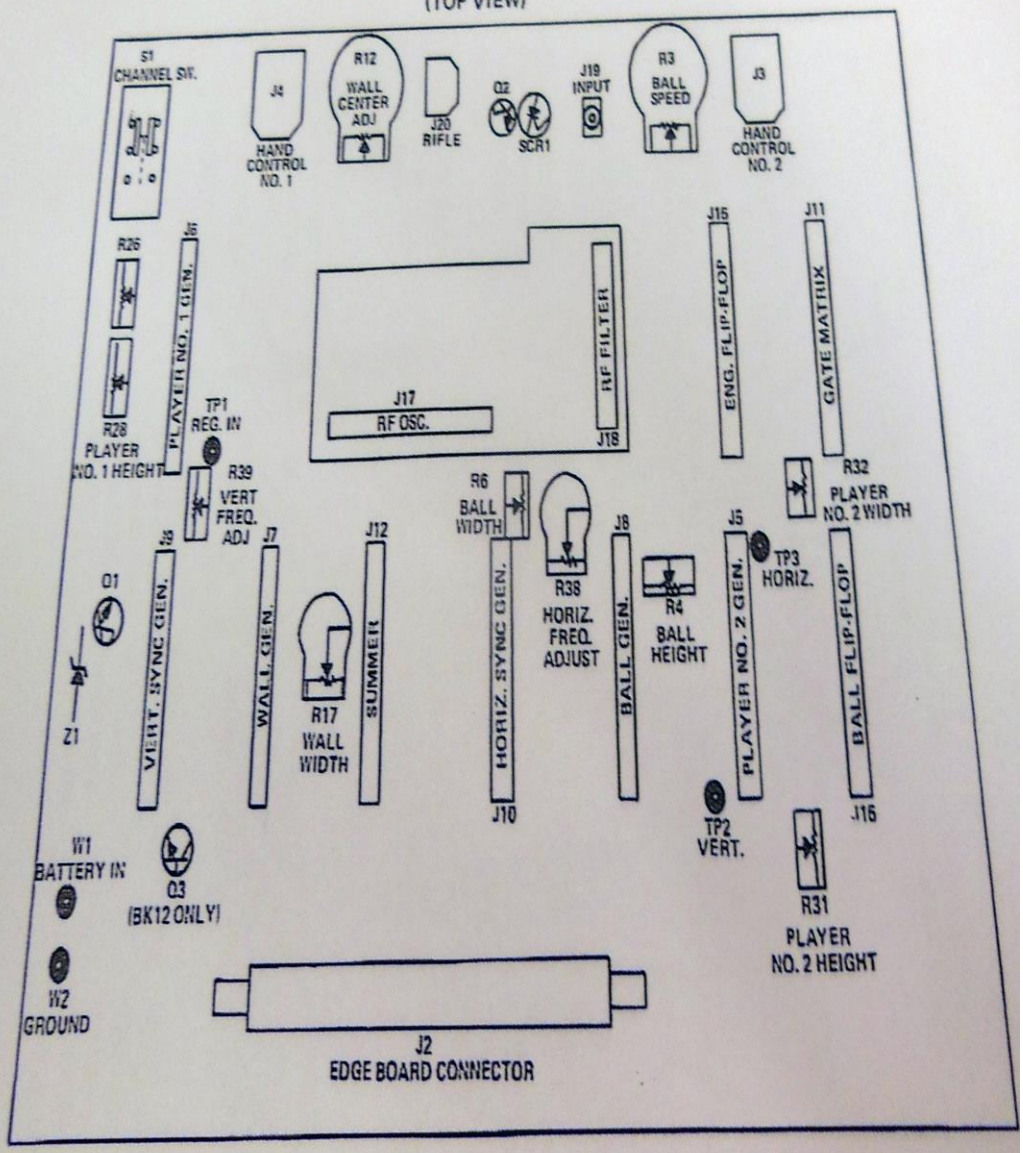
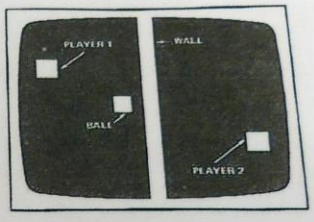


TABLE 1 – SPOT SIZES

TV Tube Size	Wall Width	Player		Ball	
		Width	Height	Width	Height
25 in.	¾ in.	1¼ in.	1¼ in.	1 in.	1 in.
23 in.	11/16 in.	1 1/8 in.	1 1/8 in.	7/8 in.	7/8 in.
21 in.	5/8 in.	1 in.	1 in.	7/8 in.	7/8 in.
19 in.	9/16 in.	15/16 in.	15/16 in.	¾ in.	¾ in.
16 in.	½ in.	13/16 in.	13/16 in.	5/8 in.	5/8 in.
14 in.	7/16 in.	11/16 in.	11/16 in.	9/16 in.	9/16 in.
12 in.	3/8 in.	5/8 in.	5/8 in.	½ in.	½ in.

Game Card No. 1 Display



SPOT SIZE ADJUSTMENTS

1. Adjust Player Control Units to position Player 1 on the left and Player 2 on the right side of the screen.
2. Use the Centering control (R12) to put the Wall at midpoint of the screen.
3. Table 1 shows the relative spot sizes in inches for various television picture tube sizes. Pick the size of the TV you are using or the listed size that is closest and the spot dimensions are listed on the same line. Use a ruler or tape to measure the spot size during adjustments.
4. Adjust R17 (Wall Width) until the Wall is the size shown in Table 1 (3/4 inch on 25 inch screen).
5. Adjust R26 (Player No. 1 Width) for proper width of Player No. 1
6. Adjust R28 for Player No. 1 Height.
7. Adjust R32 for Player No. 2 Width.
8. Adjust R31 for Player No. 2 Height.
9. Depress both reset buttons and release. Th drift to the center of the screen.
10. Turn the Centering control so that the on top of the Ball.
11. Adjust R6 for Ball Width.
12. Adjust R4 for Ball Height.
13. Turn Centering Control (R12) so that midpoint on the screen

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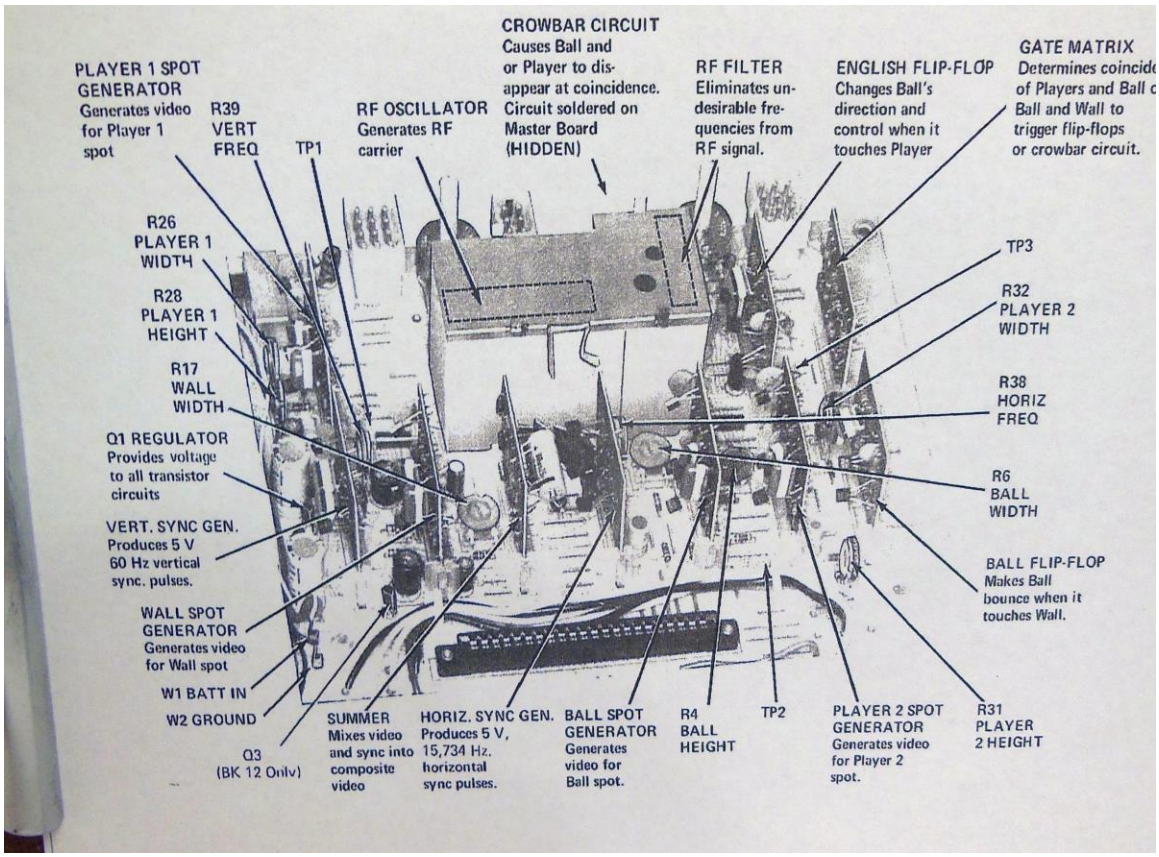
16 in.	½ in.	13/16 in.	13/16 in.	5/8 in.	5/8 in.
14 in.	7/16 in.	11/16 in.	11/16 in.	9/16 in.	9/16 in.
12 in.	3/8 in.	5/8 in.	5/8 in.	½ in.	½ in.


PLAYER 1 SPOT GENERATOR
Generates video for Player 1 spot
R39 VERT FREQ
TP1
RF OSCILLATOR
Generates RF carrier
CROWBAR CIRCUIT
Causes Ball and or Player to disappear at coincidence. Circuit soldered on Master Board (HIDDEN)
RF FILTER
Eliminates undesirable frequencies from RF signal.
ENGLISH FLIP-FLOP
Changes Ball's direction and control when it touches Player
GATE MATRIX
Determines coincide of Players and Ball c Ball and Wall to trigger flip-flops or crowbar circuit.
R26 PLAYER 1 WIDTH
R28 PLAYER 1 HEIGHT
R17 WALL WIDTH
Q1 REGULATOR
Provides voltage to all transistor circuits
VERT. SYNC GEN.
Produces 5 V 60 Hz vertical sync. pulses.
WALL SPOT GENERATOR
Generates video for Wall spot
W1 BATT IN
W2 GROUND
Q3 (BK 12 Only)
SUMMER
Mixes video and sync into composite video
HORIZ. SYNC GEN.
Produces 5 V, 15,734 Hz. horizontal sync pulses.
BALL SPOT GENERATOR
Generates video for Ball spot.
R4 BALL HEIGHT
TP2
PLAYER 2 SPOT GENERATOR
Generates video for Player 2 spot.
R31 PLAYER 2 HEIGHT
TP3
R32 PLAYER 2 WIDTH
R38 HORIZ FREQ
R6 BALL WIDTH
BALL FLIP-FLOP
Makes Ball bounce when it touches Wall.

NEXT I WILL SHOW YOU HOW I MAKE THE SPECIAL CORDS THAT REPLACE THE SWITCHBOX

FIRST I TAKE 1 ORIGINAL CORD ABOUT 14 FEET LONG AND CUT IT IN HALF, GIVING ME 2-7 FOOT CORDS EACH WITH 1 MAGNAVOX SPECIAL END

A SOLDER GUN IS NEEDED

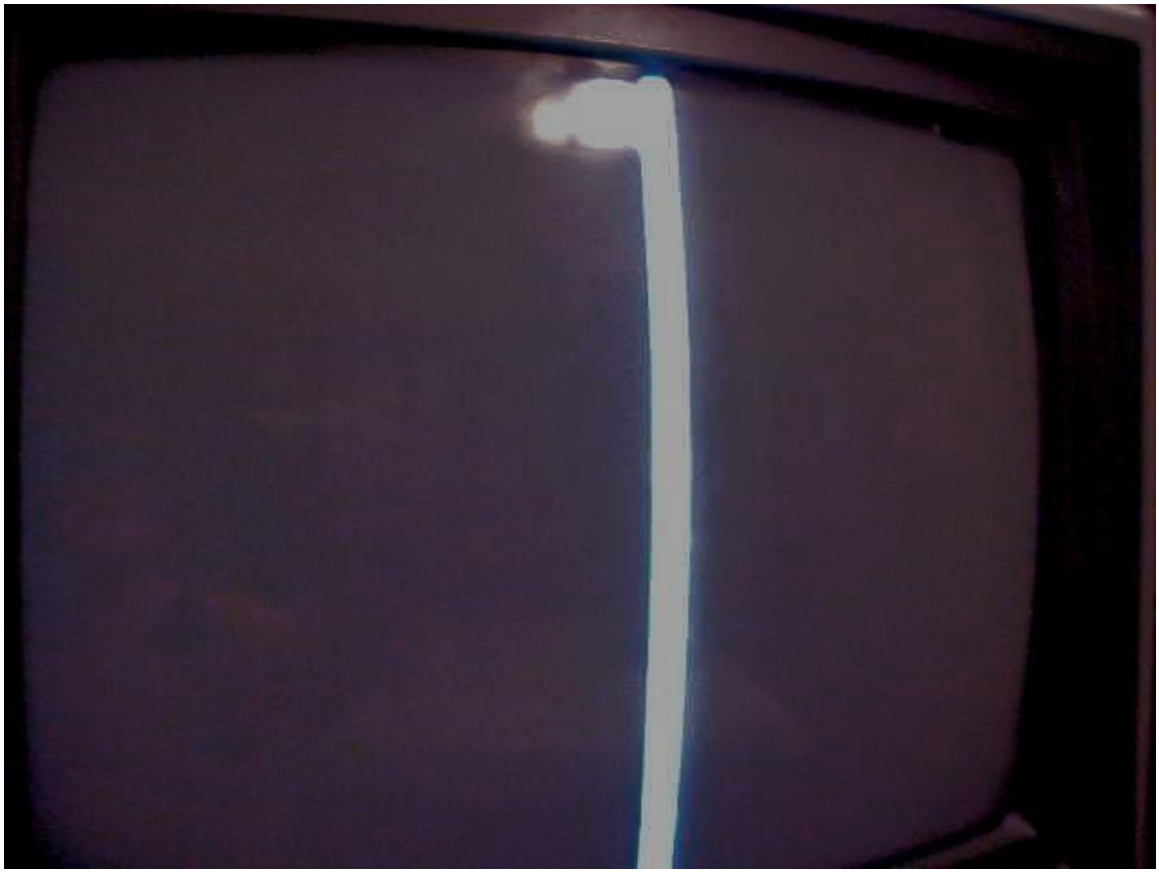
THEN TRIM BACK THE COVERING & BEND BACK THE SILVER MESH (GROUND)

TRIM DOWN THE CENTER POSITIVE WIRE

SOLDER IN PLACE AND TIGHTEN CLAMP ON WIRE

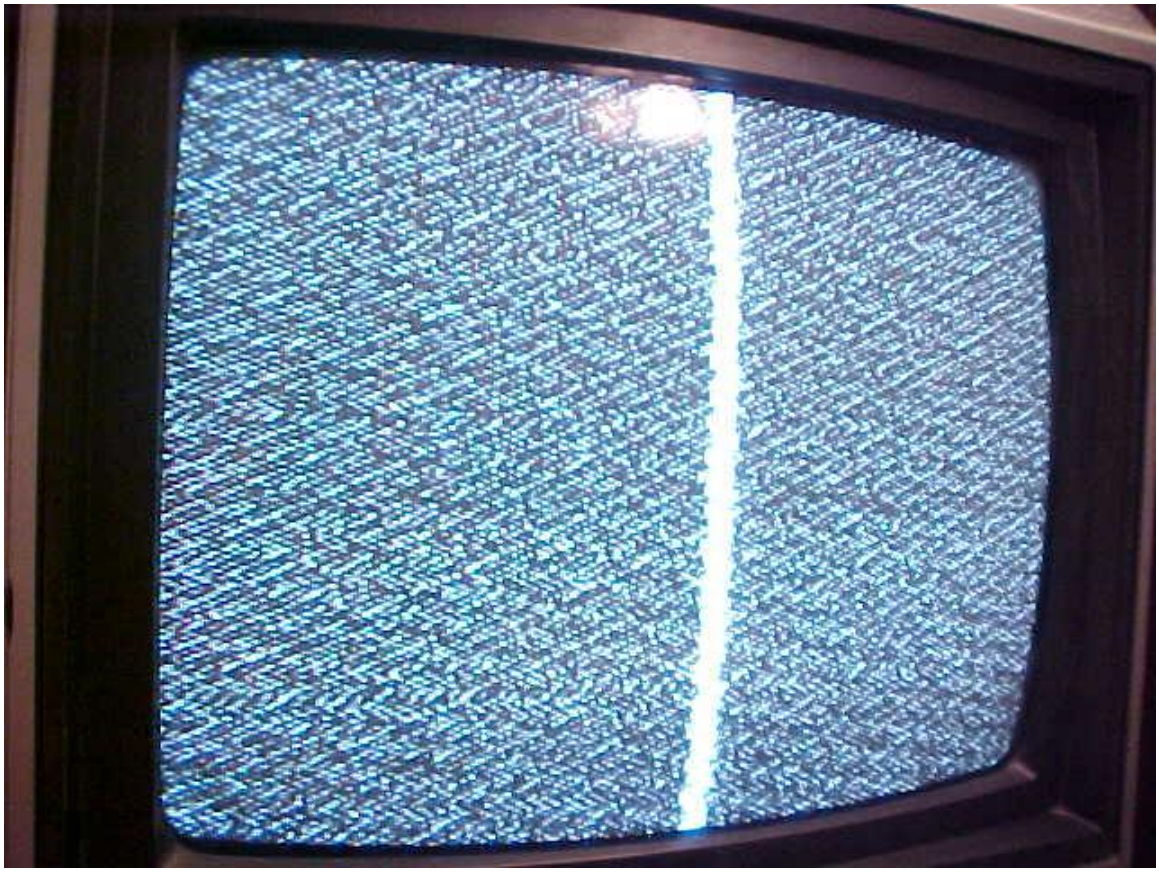
NOW IT'S TIME TO TEST IT

YOU NEED DECK AS SHOWN
WITH GAME 1



THIS IS WHAT YOU SHOULD SEE WITH NO CONTROLS
26

IF YOUR PICTURE LOOKS LIKE THIS

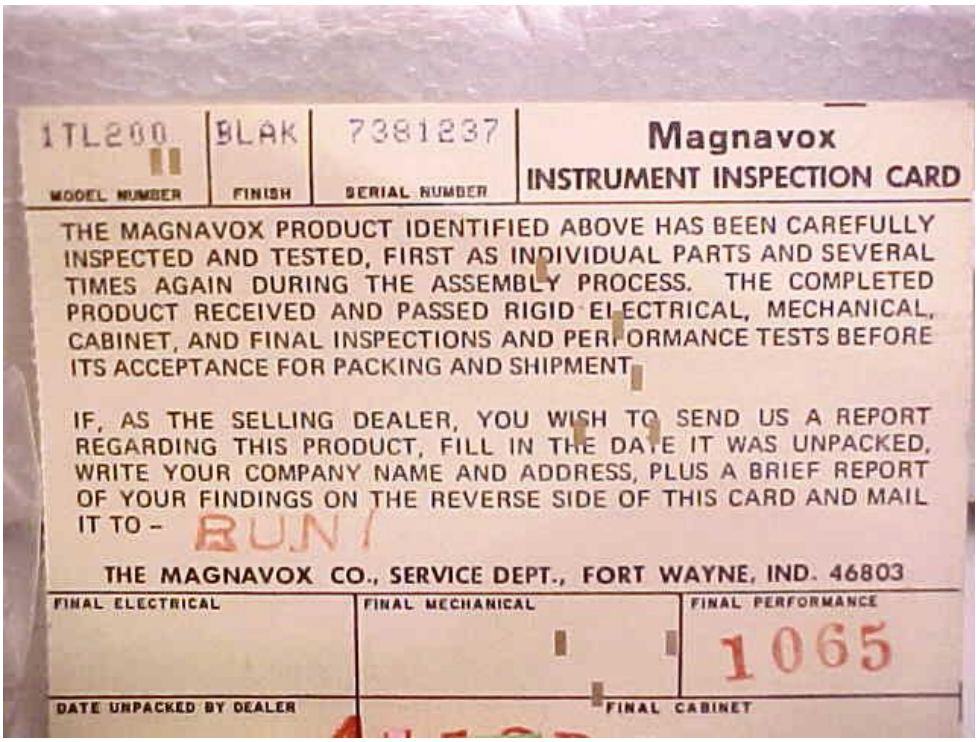


THAT MEANS YOUR SOLDER CONNECTION IS BAD
IT MEANS SOME OF THE NEGATIVE MESH IS
TOUCHING THE POSITIVE WIRE
IT DOES NOT NEED TO BE MUCH
ONE TINY WIRE WILL CAUSE THIS
RE-HEAT AND TRY AGAIN

28

THE LIGHT SPOT ON TOP IS FROM ROOM LIGHT
ANY QUESTIONS?
I SELL THESE WIRES IN MY EBAY STORE
WHEN I HAVE THEM, USUALLY DO NOT
BUT THEY ARE MUCH BETTER THAN SWITCH BOXES

I AM NOW TRYING TO OFFER PARTS & PIECES ETC.
Dixsales@aol.com
ANY PROBLEM,EMAIL ME AT ABOVE ADDRESS
SOME TIMES YOU GET INSPECTION CARD
IT IS GREAT IF NUMBERS MATCH CONSOLE


1TL200
BLAK
7381237
MODEL NUMBER
FINISH
SERIAL NUMBER
Magnavox
INSTRUMENT INSPECTION CARD
THE MAGNAVOX PRODUCT IDENTIFIED ABOVE HAS BEEN CAREFULLY INSPECTED AND TESTED, FIRST AS INDIVIDUAL PARTS AND SEVERAL TIMES AGAIN DURING THE ASSEMBLY PROCESS. THE COMPLETED PRODUCT RECEIVED AND PASSED RIGID ELECTRICAL, MECHANICAL, CABINET, AND FINAL INSPECTIONS AND PERFORMANCE TESTS BEFORE ITS ACCEPTANCE FOR PACKING AND SHIPMENT.
IF, AS THE SELLING DEALER, YOU WISH TO SEND US A REPORT REGARDING THIS PRODUCT, FILL IN THE DATE IT WAS UNPACKED, WRITE YOUR COMPANY NAME AND ADDRESS, PLUS A BRIEF REPORT OF YOUR FINDINGS ON THE REVERSE SIDE OF THIS CARD AND MAIL IT TO – RUN 1
THE MAGNAVOX CO., SERVICE DEPT., FORT WAYNE, IND. 46803
FINAL ELECTRICAL
FINAL MECHANICAL
FINAL PERFORMANCE
1065
DATE UNPACKED BY DEALER
FINAL CABINET

Dating Magnavox Systems

The serial numbers on Run one systems
Are located on bottom of deck
And inside the base on the side.
Starting with 67
First 2 numbers are month
67=Jan
68=Feb
69=March
70=April
71=May
72=June
73=July
74=Aug
75=Sept
76=Oct
77 &78 =Nov low #s
78-79 Dec.
These are 1972 dates
1972 NUMBERS ARE LIKE THESE
7068625

7091792
7627332

SOME 1973 NUMBERS I HAVE SEEN

9138805

1972 AND 1973 UNITS HAVE 7 DIGIT NUMBERS

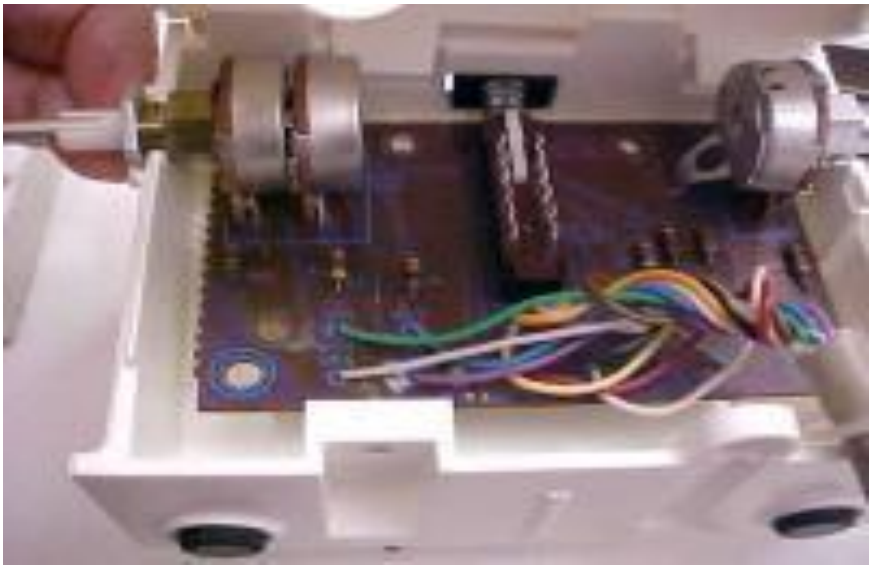
1974
10250000
10550000
10970000
1975
11840000
11840000

1974 AND 1975 UNITS HAVE 8 DIGIT NUMBERS

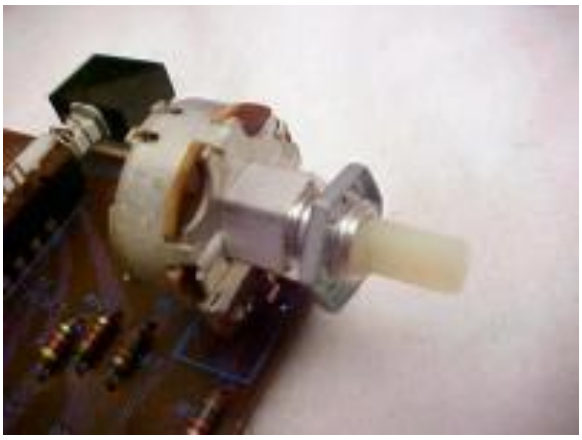
WELL I HAVE LEARNED SOMETHING NEW

AFTER TESTING AND SELLING TONS OF THESE SYSTEMS, I FOUND A PROBLEM WITH THE HAND CONTROLS.
IF THEY ARE JITTERY OR UNCONTROLABLE THEY CAN BE CLEANED INSIDE WITH ELECTRONIC CLEANING FLUID

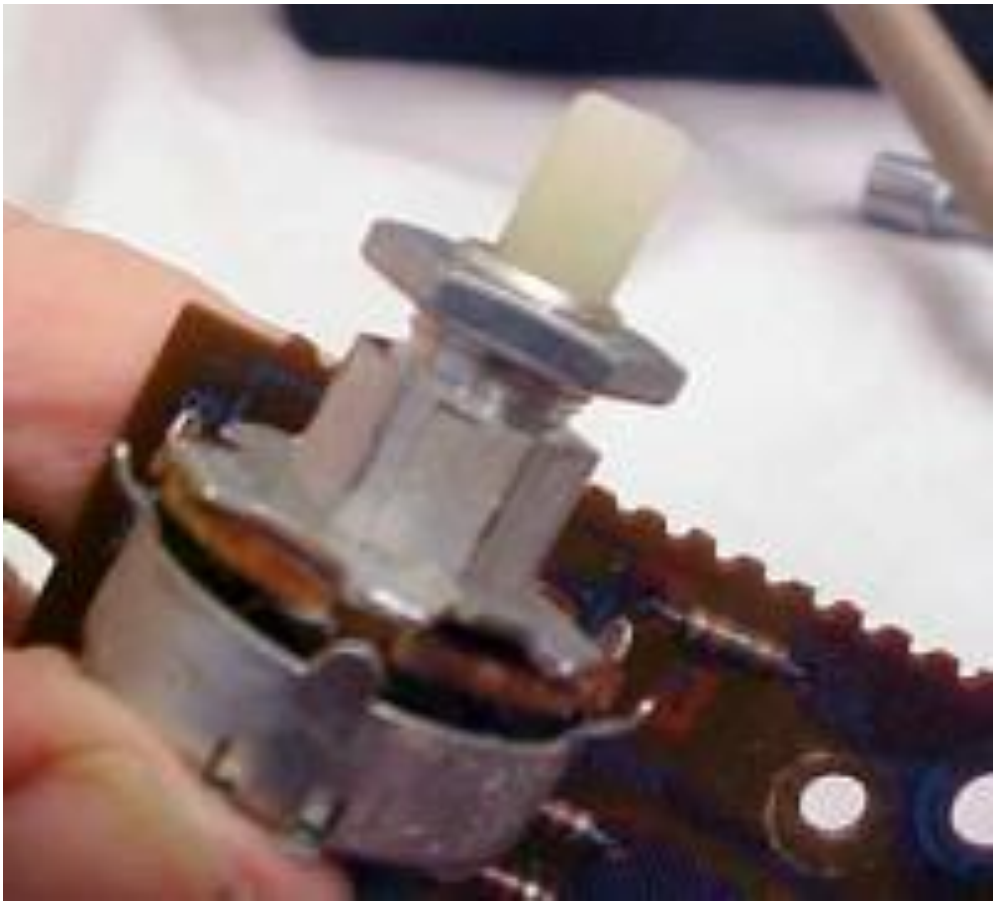
IT IS THE RIGHT SIDE KNOB



REMOVE 2 SCREWS & REMOVE BROWN KNOBS AND SPRAY ELECTRONIC CLEANING FLUID INSIDE OR IN BACK CENTER HOLE OF PODS

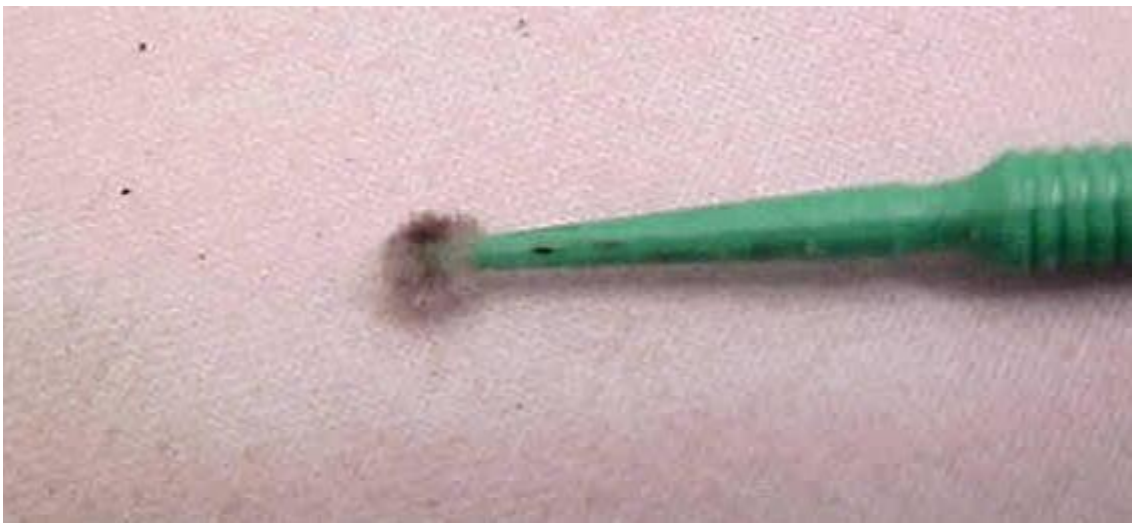


OR YOU CAN TRY OPENING THE PODS

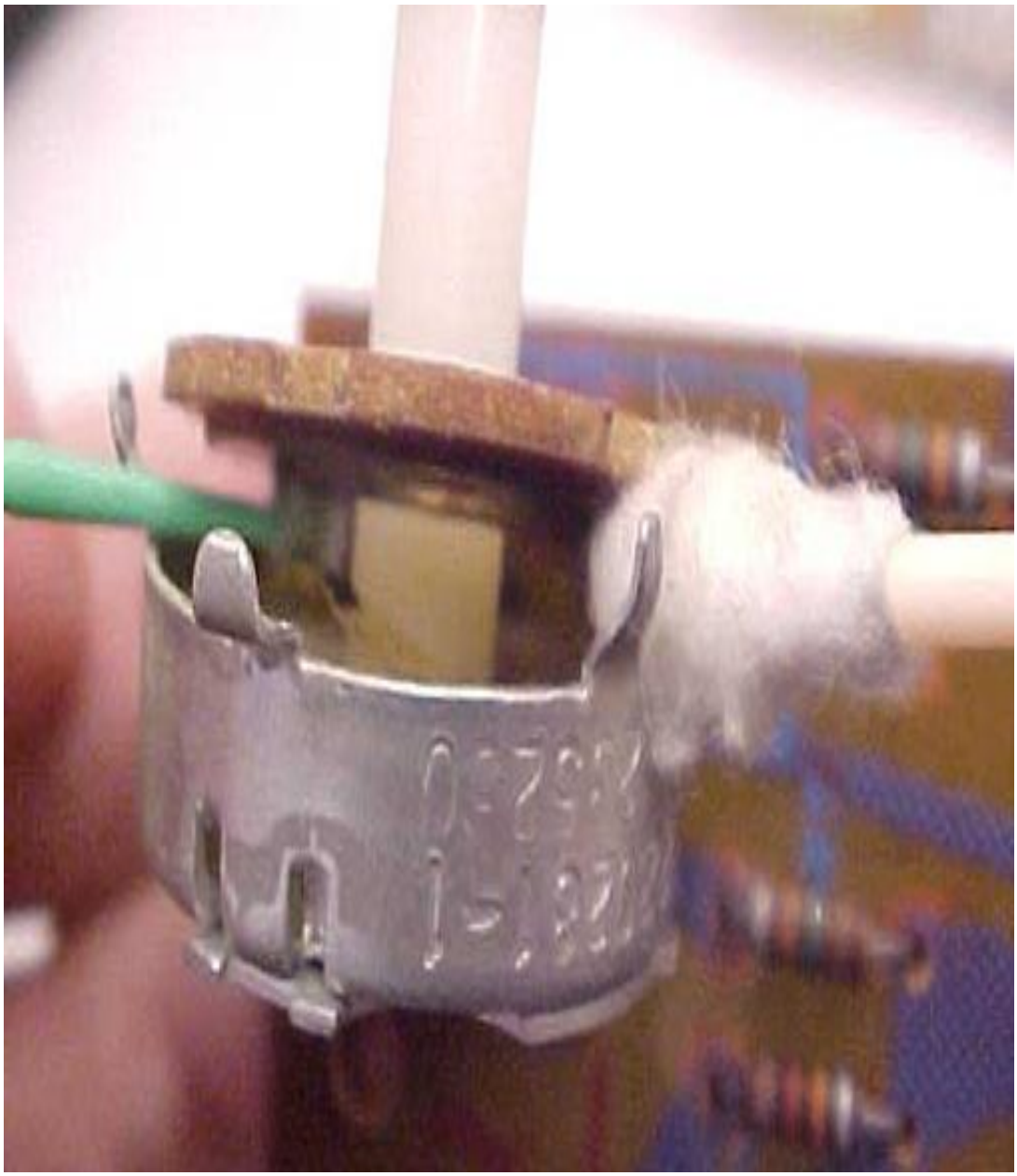


THIS IS HOW I DID IT AT FIRST
BY PRYING UP TABS AND LIFT SLOWLY
BUT I IS HARD TO DO

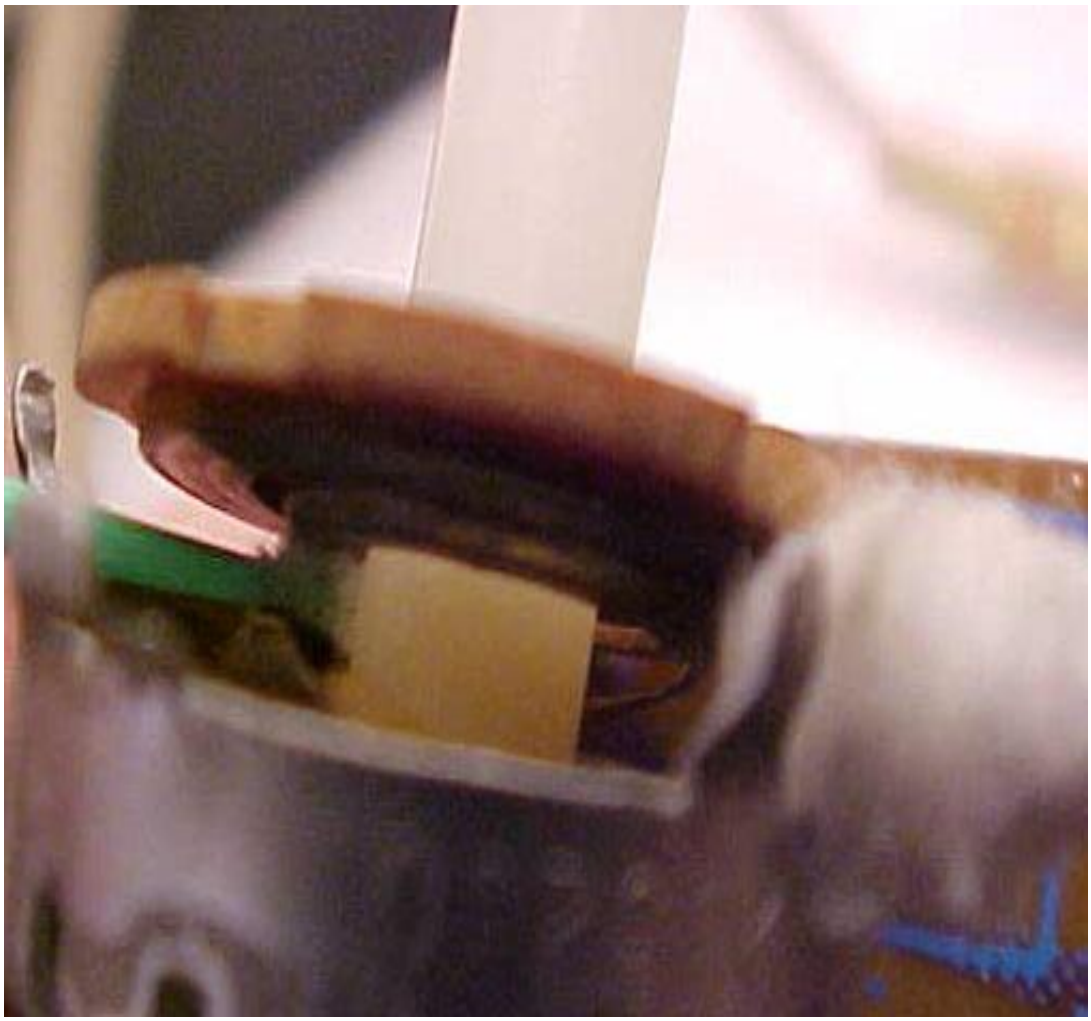
I FOUND THESE TINY PADS/BRUSHES
AND THEY ARE PERFECT SIZE TO GET INSIDE
WITHOUT BENDING TOO MUCH
INSERT WET TIP I(CLEANING FLUID) ON TO POD AND SCRUB
BRASS AND BLACK PLATE.
THERE MAY NOT BE MUCH DIRT, BUT IT
HAS WORKED FOR ME



SEE THE SMALL TIPS ARE BLACK NOW
YOU NEED TO SCRUB THEM
BUT AGAIN SOME TIMES JUST SPRAYING
THE FLUID WILL WORK FOR AWHILE



HOLD IT OPENED WITH QTIP
THEN INSERT MINI BRUSH



SEE THE BLACK PLATE ON TOP
THAT NEEDS TO BE CLEANED GOOD
THIS IS THE HARD WAY BUT WORKED GOOD
NOW PUT IT ALL BACK TOGETHER
AND YOUR JITTER SHOULD BE GONE

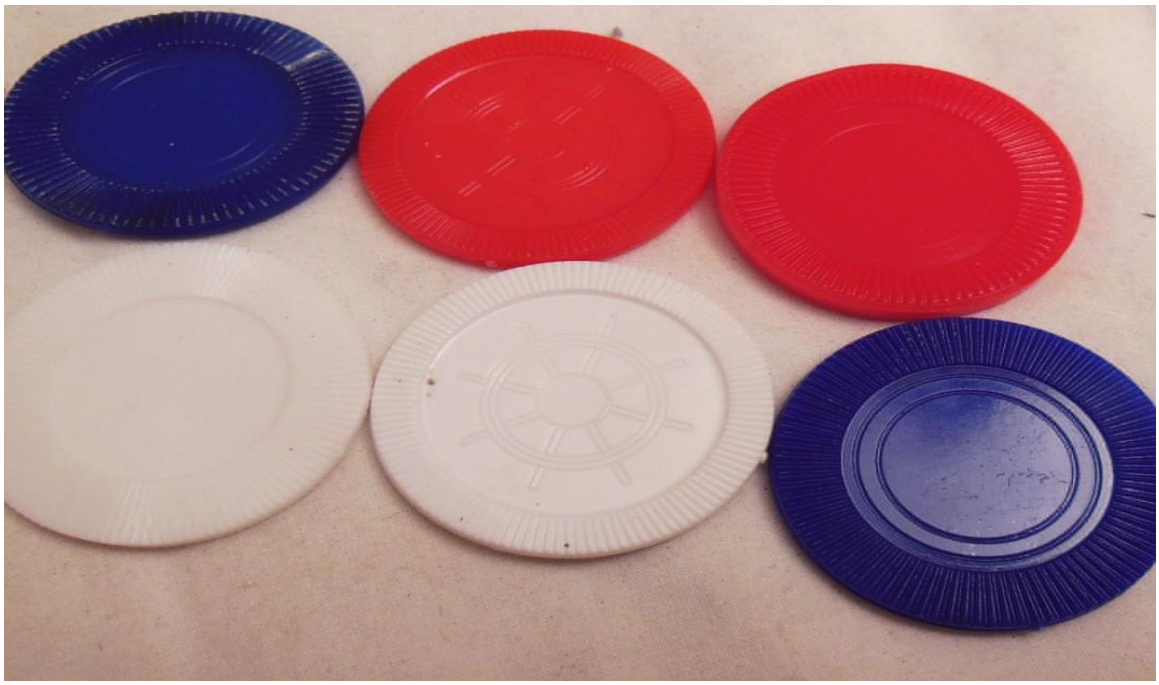
I HAVE NOW FOUND THAT JUST SPRAYING
THE CONTROL PODS WITH AN ELECTRIC
CONTACT CLEANER WILL FIX THEM FOR A WHILE
YOU CAN TRY REMOVING KNOB ON SIDE OF
CONTROL AND SPRAY DIRECTLY ON THE SHAFT OR
REMOVE THE SCREWS AND SPRAY EACH POD INSIDE

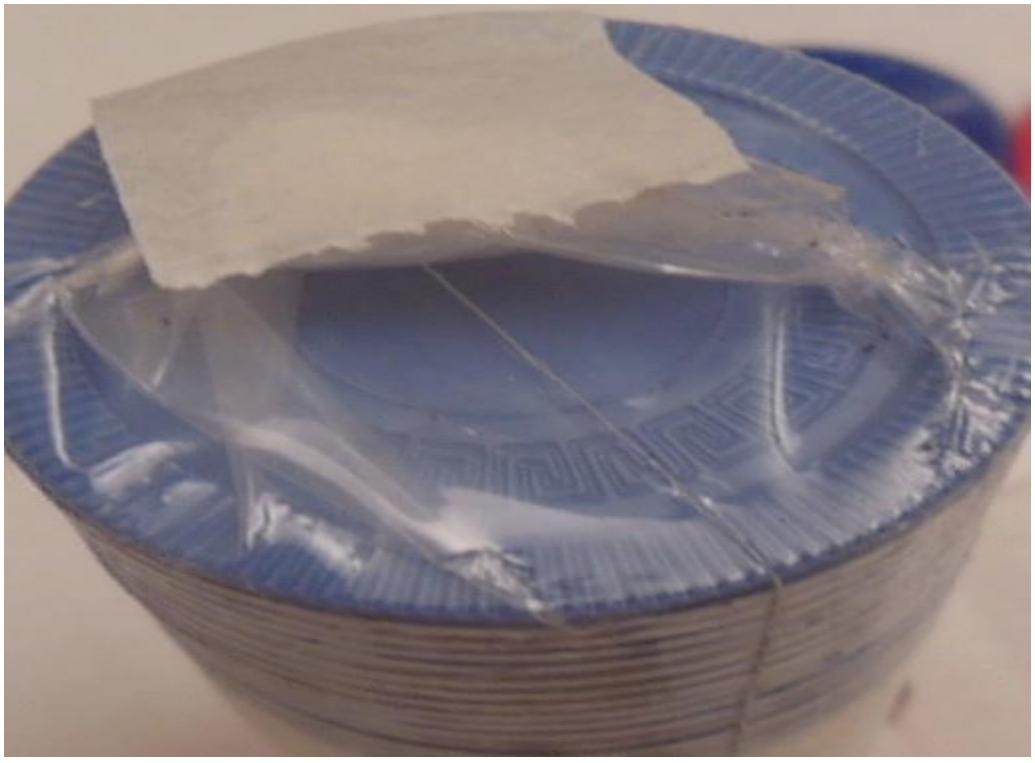
I FOUND THIS AT ACE HARDWARE
BUT I AM SURE OTHER STORES HAVE
THIS CLEANER

SPRAY DIRECT ON SHAFT

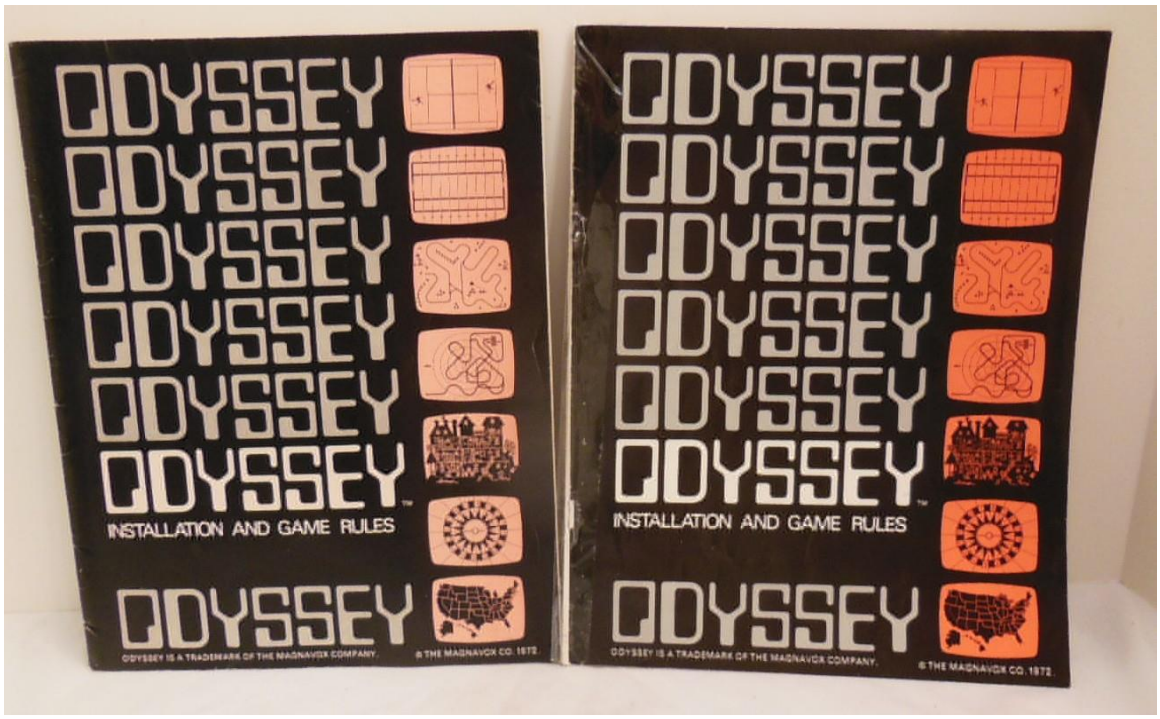
UPDATED APRIL 2016
I HAVE BOUGHT AND SOLD OVER 200 ITL200s
HERE ARE SOME OF THE THINGS I HAVE NOTICED

THERE ARE AT LEAST 3 DIFFERENT SIZE
POKER CHIPS FROM 72-75





Thick
74
74
72



THE PINK BOOK IS FROM 1972, RED 1973-75

THE EARLY CORDS WERE THICK(RIGHT SIDE)
LATER YEARS THINNER

THE STICKERS CHANGED FROM 72-75
THE LARGE SET WAS FOR 1972 WITH STICKERS FOR GREAT LAKES
THE FOLLOWING YEARS THE LAKES WERE FILLED IN WITH LINES AND BY 75 ONLY 1 PAGE WAS NEEDED